

Safetygram

NCI-Frederick

ISM-178

LABORATORY PERSONNEL

JUNE 2002

Environmentally Friendly Scintillation Fluid

Laboratory personnel must reduce hazardous and mixed waste generation to the extent "economically feasible". The NCI-Frederick Pollution Prevention Plan describes methods to reduce chemical wastes and pollution. Substituting a safer, less toxic product is one of the best ways to accomplish this. Besides being safer to use, disposal of these substitutes is often less expensive.

Most scintillation cocktails are hazardous waste because they are flammable (flash point less than 140°F) or contain EPA-listed solvents such as toluene or xylene. "Environmentally friendly" scintillation cocktails are those that:

- Have a flash point greater than 140°F (60°C).
- Contain solvents such as linear alkylbenzenes (LAB), phenylxylylethane (PXE) or diisopropylnaphthalene (DIPN).

The warehouse has recently started stocking environmentally friendly Ecoscint A (SPWH-68101028) for aqueous samples, and Ecoscint O (SPWH-68101034) for non-aqueous samples. Most vendors also offer environmentally friendly scintillation fluids. A partial list follows:

Cocktail Name

Ecoscint A
Ecoscint
Ecoscint H
Ecoscint O
Betamax ES****
Cytoscint ES****
Ecolite
Ecolume
Bio-Safe II
Bio-Safe NA
Econosafe
Mono Flow 5
Optifluor
Microscint 20
Microscint PS
Ultima Gold
OrganicSolv 3
Envirosafe
Betaplate Scint
Ready Safe

Supplier

National Diagnostics
National Diagnostics
National Diagnostics
National Diagnostics
ICN Biomedicals
ICN Biomedicals
ICN Biomedicals
ICN Biomedicals
Research Products
Research Products
Research Products
National Diagnostics
Packard
Packard
Packard
Packard
Anorac Scientific
Anorac Scientific
Pharmacia LKB
Beckman Instruments

We suggest that scintillation cocktail users evaluate and adapt environmentally friendly scintillation cocktails in their procedures. Many vendors will send a sample of their product for evaluation purposes. We each have a responsibility to prevent pollution, reduce hazardous wastes, and protect the environment. Changing scintillation cocktails is a very good way to start.

EHS will continue to handle disposal for all waste scintillation cocktails. **DO NOT** pour any liquid scintillation fluids into laboratory drains.

Please contact EHS on x5718 or x1384 if you have any questions concerning liquid scintillation cocktails.

****The “Environmentally friendly” products are Betamax ES, product number 880020, and Cytoscint ES, product number 882453.****